

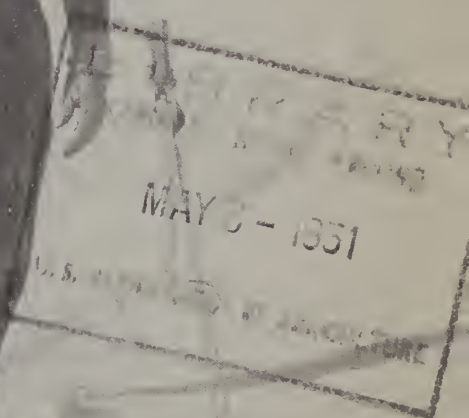
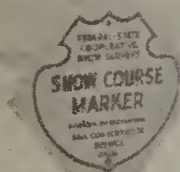
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FEDERAL - STATE COOPERATIVE
SNOW SURVEYS AND IRRIGATION WATER FORECASTS

for
Nevada

By

Division of Irrigation, Soil Conservation Service
United States Department of Agriculture
Nevada Agricultural Experiment Station
and
Nevada State Engineer

Data included in this report were obtained by the agencies named above in cooperation with other Federal, State and local organizations listed on the last page of this report.

As of
APR. 1, 1951

FEDERAL-STATE COOPERATIVE
SNOW SURVEYS AND IRRIGATION WATER FORECASTS

FOR

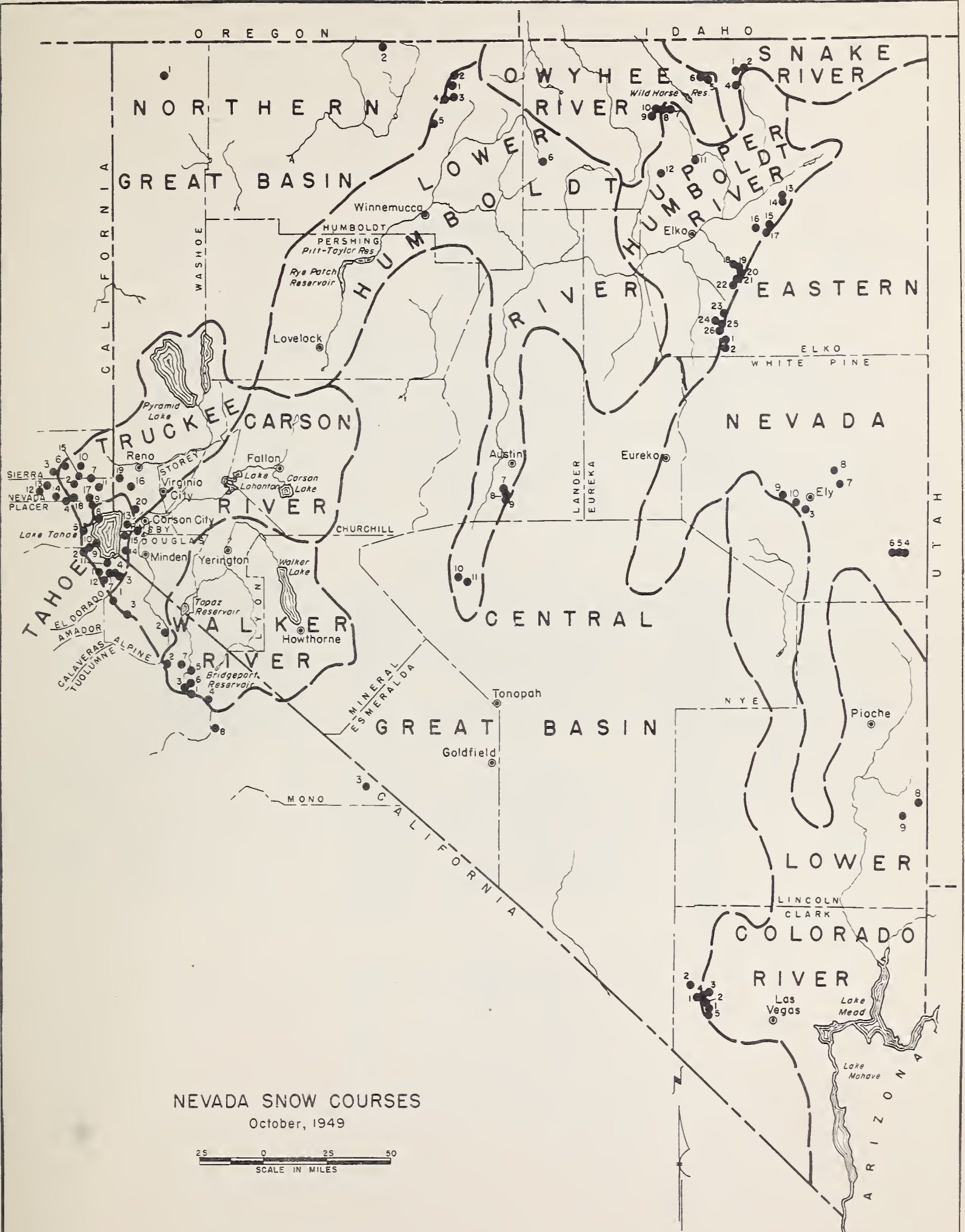
NEVADA

Report Prepared

by

Clyde E. Houston, Irrigation Engineer
Division of Irrigation
Soil Conservation Service

Division of Irrigation
Soil Conservation Service
Nevada Agricultural Experiment Station
Reno, Nevada



INDEX TO SNOW COURSES

<u>NUMBERS</u>	<u>NAME</u>	<u>ELEVATION</u>	<u>NUMBERS</u>	<u>NAME</u>	<u>ELEVATION</u>	<u>NUMBERS</u>	<u>NAME</u>	<u>ELEVATION</u>
SNAKE RIVER			TRUCKEE BASIN			CARSON BASIN		
1.	Bear Creek	7,800	2.(Cal.)	Independence Lake.	8,450	1.(Cal.)	Carson Pass. . . .	8,600
2.	Fox Creek	6,800	3.(Cal.)	Webber Peak	8,000	2.(Cal.)	Poison Flat. . . .	7,900
4.	76 Creek	7,100	4.(Cal.)	Donner Summit. . . .	6,900	3.(Cal.)	Blue Lakes	8,000
5.	Gold Creek	6,600	5.(Cal.)	Ward Creek	7,000	4.	Clear Creek.	7,300
6.	Big Bend	6,700	6.(Cal.)	Webber Lake.	7,000	NORTHERN GREAT BASIN		
OWYHEE RIVER			7.(Cal.)	Sage Hen Creek . . .	6,500	1.	Bald Mountain	6,720
1.	Lower Buckskin	6,700	8.(Cal.)	Tahoe City	6,250	2.	Disaster Peak	6,500
2.	Upper Buckskin	7,200	9.(Cal.)	Truckee #2	6,400	WALKER BASIN		
3.	Martin Creek	6,700	10.(Cal.)	Independence Creek	6,300	1.(Cal.)	Center Mountain. . .	9,400
4.	Granite Peak	7,800	11.(Cal.)	Boca #2	5,900	2.(Cal.)	Sonora Pass.	8,800
5.	Gold Creek	6,600	12.(Cal.)	Furnace Flat	6,600	3.(Cal.)	Buckeye Forks. . . .	8,500
6.	Big Bend	6,700	13.(Cal.)	Fordyce Lake	6,500	4.(Cal.)	Virginia Lakes . . .	9,500
7.	Fry Canyon	6,700	14.(Cal.)	Soda Springs	6,750	5.(Cal.)	Willow Flat.	8,250
8.	Rodeo Flat	6,800	15.(Cal.)	Independence Camp.	7,000	6.(Cal.)	Buckeye Roughs . . .	7,900
9.	Lower Jack Creek . . .	6,800	16.	Mt. Rose	9,000	7.(Cal.)	Leavitt Meadows. . .	7,200
10.	Upper Jack Creek . . .	7,250	17.(Cal.)	Truckee Ranger Station.	6,000	8.(Cal.)	Tioga Pass	9,900
11.	Tremewan Ranch	5,700	18.(Cal.)	Donner Lake.	5,950	TAHOE BASIN		
12.	Taylor Canyon	6,200	19.	Big Meadows.	8,800	1.(Cal.)	Lake Lucille	8,400
UPPER HUMBOLDT RIVER			20.	Little Valley. . . .	6,300	2.(Cal.)	Rubicon #1	8,100
1.	Bear Creek	7,800	LOWER COLORADO RIVER			3.(Cal.)	Hagens Meadow. . . .	8,000
2.	Fox Creek	6,800	1.	Rainbow Canyon	7,800	4.(Cal.)	Freel Bench.	7,300
4.	76 Creek	7,100	2.	Kyle Canyon	8,200	5.(Cal.)	Ward Creek	7,000
5.	Gold Creek	6,600	3.	Lee Canyon #1	8,300	7.(Cal.)	Upper Truckee. . . .	6,400
6.	Big Bend	6,700	4.	Lee Canyon #2	9,000	8.(Cal.)	Tahoe City	6,250
7.	Fry Canyon	6,700	5.	Rainbow Canyon #2. . .	8,100	9.(Cal.)	Rubicon #2	7,500
8.	Rodeo Flat	6,800	8.	Mathew Canyon	6,000	10.(Cal.)	Rubicon #3	6,700
9.	Lower Jack Creek . . .	6,800	9.	Pine Canyon	6,200	11.(Cal.)	Richardsons #2 . . .	6,500
10.	Upper Jack Creek . . .	7,250	EASTERN NEVADA			12.(Cal.)	Echo Summit.	7,500
11.	Tremewan Ranch	5,700	1.	Cave Creek	7,000	13.	Marlette Lake. . . .	8,000
12.	Taylor Canyon	6,200	2.	Hager Canyon	8,500	14.	Daggetts Pass. . . .	7,350
13.	Lower Trout Creek. . .	6,900	3.	Murray Summit.	7,250	15.	Glenbrook #2	6,900
14.	Upper Trout Creek. . .	8,500	4.	Baker #1	7,950	16.	Mt. Rose	9,000
15.	Dorsey Basin	8,100	5.	Baker #2	8,950	CENTRAL GREAT BASIN		
16.	Ryan Ranch	5,800	6.	Baker #3	9,250	1.	Clark Canyon. . . .	9,000
17.	Dry Creek	6,500	7.	Berry Creek.	9,100	2.	Trough Springs. . . .	8,500
18.	Lamoille #1	7,100	8.	Bird Creek	7,500	3.(Cal.)	McAfee Forks. . . .	7,500
19.	Lamoille #2	7,300	9.	Robinson Summit. . . .	7,600			
20.	Lamoille #3	7,700	10.	Kimberly	7,600			
21.	Lamoille #4	8,000						
22.	Lamoille #5	8,700	1.	Lower Buckskin	6,700			
23.	Green Mountain	8,000	2.	Upper Buckskin	7,200			
24.	Harrison Pass #1 . . .	6,600	3.	Martin Creek	6,700			
25.	Harrison Pass #2 . . .	7,400	4.	Granite Peak	7,800			
26.	Corral Canyon.	8,500	5.	Lamance Creek	6,600			
			6.	Midas	7,200			
			7.	Big Creek Camp Ground.	6,000			
			8.	Big Creek Mine	7,000			
			9.	Upper Big Creek. . . .	8,000			
			10.	Lower Corral	7,500			
			11.	Upper Corral	8,500			

WATER SUPPLY OUTLOOK

NEVADA

APRIL 1, 1951

* * * * *
*
* 1951 snow water runoff will vary from drought *
* conditions in Central and Southern Nevada to *
* about 50 percent above normal in the north on *
* the main Humboldt River. Snow melt runoff *
* from the Eastern Sierra Nevada will range *
* from 25 to 50 percent of normal. Fortunately,*
* reservoir storage in the latter area is near *
* capacity. *
*
* * * * *

Snow stored water in the Sierra is slightly above average at the high elevations but rapidly decreases to bare ground at the low elevations. In the Humboldt Basin high snow ranges from average to about 10 percent above, while low snow ranges from about 50 percent below to average. The area from about Highway 50 south contains less snow than previously measured during the past ten years of record.

U. S. Geological Survey reports October through March streamflow from the Eastern Sierra about seven times normal, while the Humboldt flow for the same period was about three times normal. In these areas groundwater levels are above normal and valley and foothill soils are saturated.

Reservoir storage on April 1, 1951, was about 206 percent of last year and 113 percent of the past ten year average.

1. The first part of the document is a letter from the author to the editor, dated 10/10/1910. The letter is written in a very formal and polite manner, and it discusses the author's recent work on the history of the city of London. The author mentions that he has been working on this project for some time, and that he has been able to gather a great deal of information about the city's past. He also mentions that he has been able to find some very interesting facts about the city's history, and that he is now ready to publish his findings.

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STREAMFLOW FORECASTS APRIL 1, 1951

Forecast Stream	April-July, Streamflow Thousands Acre Feet					
	Forecast 1951	1901-45 Normal	1951 as % 45 yr. Norm.	Measured Runoff		
				1950	1949	1948
Owyhee River nr. Owyhee, Nev. ¹	100	80	125		106	53
Lamoille Crk. nr. Lamoille, Nev.	33	30	110		25	25
So. Fk. Humboldt nr. Elko, Nev.	70	70	100		68	45
Humboldt River at Palisade, Nev.	300	200	150	195	200	107
Martin Crk. nr. Paradise, Nev.	15	20	75		13	13
East Walker nr. Bridgeport, Calif. ²	32	75	43	43	39	31
West Walker nr. Coleville, Calif.	100	175	57	140	117	109
East Carson nr. Gardnerville, Nev.	100	210	48		164	151
West Carson at Woodfords, Calif.	22	65	34		43	45
Carson River nr. Carson City, Nev.	90	200	45		147	131
Carson River at Ft. Churchill, Nev.	50	195	26	195	128	113
Lake Tahoe ⁴ Rise ⁵	707 0.75	583 1.55	121 48	489 2.05	318 1.08	465 1.59
Truckee River at Farad, Calif. ³	150	290	52	325	182	211

1. Corrected for storage in Wildhorse Reservoir.

2. For period April through August corrected for storage in Bridgeport Reservoir.

3. Exclusive of Tahoe and corrected for storage in Boca Reservoir.

4. Maximum storage with gates closed.

5. Maximum rise, in feet, from April 1, assuming gates closed.

Tahoe and Truckee Forecasts by Truckee Basin Water Committee.

STREAMFLOW FORECASTS APRIL 1, 1951

Snake River Basin in Nevada

Snow stored water above Salmon Falls Creek and Bruneau River is about 95 percent of last year but still 110 percent of normal.

Owyhee River near Owyhee, Nevada, is forecast to flow 100,000 acre feet from April through July. This is 125 percent of normal. Wildhorse reservoir with a capacity of 33,000 acre feet stored 26,000 acre feet on April 1. This reservoir should fill this summer.

Upper Humboldt River

High elevation snow on the headwaters of Marys River is about ten percent greater than normal while that on the North Fork, Susie and Maggie Creeks is near normal. Low snow in these areas is gone with a resultant saturation of soil and recovery of valley groundwater.

In the Trout Creek - Secret Valley area of the Ruby Mountains all low snow has melted. High snow is about 90 percent of average.

The April through July forecast for Lamoille Creek is 33,000 acre feet or 110 percent of normal. South Fork of Humboldt should flow 70,000 acre feet, which is normal.

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Humboldt River at Palisade should flow 300,000 acre feet. This is 150 percent of normal and about 50 percent greater than last year. The fact that groundwater levels are higher than normal and that the soil is saturated allows for the forecast of the main stem of the Humboldt being relatively larger than its tributaries.

Lower Humboldt Basin

Snow stored water on the headwaters of Little Humboldt Basin is about 90 percent of last year and 95 percent of average. The April - July flow of Martin Creek measured near Paradise Valley should be approximately 15,000 acre feet or 75 percent of average. Nearly all of the snow on Rock Creek Watershed in the vicinity of Midas has melted. Soil is saturated and spring range should be excellent.

Upper Reese River Watershed continues the second year of drought.

Rye Patch Reservoir stored 109,000 acre feet on April 1. This is twice that available on this date last year and about 60 percent of capacity.

Eastern Nevada

Snow water above Ruby Valley is less than normal for this date, but due to last winters heavy rain Ruby Lake has shown a decided rise.

Baker and Lehman Creeks snow cover is only 50 percent of normal and 80 percent of last year.

Snow on Steptoe and Spring Valleys Watershed is below normal. On Duck Creek, east of McGill low snow has melted and high snow is only 75 percent of normal.

Lower Colorado River in Nevada

Snow water in the Mount Charleston area near Las Vegas is at or near an all time low for this date. This year snow stored water is only 10 percent of normal and 17 percent of last year. This shortage will undoubtedly have an affect on groundwater in the Las Vegas Artesian Basin.

There was very little snow in the Meadow Valley Wash Area with practically all snow melted by the first of March.

Lake Mead stored 90 percent of normal and 95 percent of last year on this date.

Central Great Basin

This area received below normal snowfall during the past winter. In the Spring Mountains above Pahrump Valley April 1 snow was only 10 percent of average and 40 percent of last year record low.

View on the lake and Spring Valley Hotel
in foreground. On the right, the
low snow has melted and the water is only a
few feet deep.

Spring Valley Hotel

View from the hotel looking down the
lake. The water is so low that the
beach is almost entirely exposed. The
snow has melted and the water is only a
few feet deep. The hotel is in the
foreground on the right.

There was very little snow in the
lake area. The water is so low that
the beach is almost entirely exposed.
The snow has melted and the water is
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few feet deep.

Spring Valley Hotel

The lake is so low that the beach
is almost entirely exposed. The snow
has melted and the water is only a
few feet deep. The hotel is in the
foreground on the right.

Northern Great Basin

Heavy fall storms produced favorable soil moisture conditions in the Sheldon Antelope Refuge but the warm winter reduced the snow pack until on April 1 it was slightly less than 50 percent of average.

Snow stored water on the headwaters of McDermitt Creek and Quinn River is about normal. Soil is saturated and streamflow is above normal.

Tahoe Basin

On April 1 Lake Tahoe stored 614,000 acre feet. This is about 130 percent of the past ten year average for this date and 80 percent of capacity.

Truckee Basin Water Committee forecasts a maximum storage, assuming normal weather conditions and gates closed, of 707,000 acre feet. This represents a rise of 0.75 feet from the April 1 elevation of 6227.95 or only 48 percent of the normal Lake rise.

Truckee Basin

Truckee Basin Water Committee anticipates the filling of Donner, Independence, and Boca Reservoirs from water presently stored in snow. Their forecast for the April through July flow of Truckee River at Farad corrected for storage changes is 150,000 acre feet or only about 50 percent of normal. It is believed that a full irrigation season water supply will be available.

Water Supply

Water supply is a problem in the West. In California it is the most serious. The water supply is so low that the water is almost gone. It is only a few inches deep in some places. It is only a few inches deep in some places. It is only a few inches deep in some places.

Water is also a problem in the West. In California it is the most serious. The water supply is so low that the water is almost gone. It is only a few inches deep in some places. It is only a few inches deep in some places. It is only a few inches deep in some places.

Water Supply

On April 1, 1934, the water supply was 1,000,000 acre feet. This is about 100 percent of the normal supply. The average for this date and 30 percent of capacity.

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Carson Basin

This basin with a relatively small percentage of high elevation watershed will be the hardest hit of the Eastern Sierra areas. East Carson River near Gardnerville should flow about 100,000 acre feet which is 48 percent of normal. It is anticipated that the flow of the River will remain greater than 200 cubic feet per second until the middle of June. West Carson at Woodfords is forecast to flow 22,000 acre feet from April through July which is only 34 percent of normal.

With very little upstream storage, the Upper Carson Valley area will suffer water shortages during the irrigation season.

Flow at Fort Churchill will be only 50,000 acre feet representing 26 percent of normal. Fortunately, Lahontan Reservoir stored 238,000 acre feet on April 1.

Walker Basin

Much of the early winter snow remains at elevations over 9000 feet while lower elevations contain less snow than at any time on this date for the past 20 years. East Walker River near Bridgeport is forecast to flow 32,000 acre feet during April through August. This is about 10,000 acre feet less than last year and only 43 percent of normal. April through July flow of West Walker River near Coleville is forecast to flow 100,000 acre feet compared to 140,000 last year. This years forecast is 57 percent of normal. Although the forecast of 1951 flow of Walker River is only about 50 percent of normal, both Bridgeport and Topaz Reservoirs are full, representing 102,000 acre feet.

General Notes

The main river is the Colorado River, which flows from the north to the south. It is the largest river in the region, and its waters are used for irrigation and power. The river is about 1,000 miles long, and its basin covers an area of about 1,000,000 square miles. The river is the source of life for the people of the region, and its waters are used for everything from drinking to farming. The river is also a major source of power, and its waters are used to generate electricity. The river is a vital part of the region, and its waters are used for everything from drinking to farming.

The very little of the river is used for drinking water. The water is used for everything from drinking to farming. The river is a vital part of the region, and its waters are used for everything from drinking to farming.

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STATUS OF RESERVOIR STORAGE, APRIL 1, 1951

BASIN and STREAM RESERVOIR		USABLE CAPACITY THOUSANDS ACRE FEET IN STORAGE ABOUT APR. 1 (THOUS. A.F.)	1951	1950	1949	1948	10-yr. avg. 1940-1949
Owyhee	Wildhorse	33	26	19	6	6	14
Lower Humboldt	Rye Patch	178	109	55	65	120	155 ^a
Colorado	Mohave	1810	1550	207	New Reservoir		
Colorado	Mead	27,217	16,806	17,686	17,735	18,620	19,031
East Walker	Bridgeport	42	42	20	20	24	37
West Walker	Topaz	59	59	24	22	25	44
Carson	Lahontan	286	238	190	197	189	239
Tahoe	Tahoe	750	614	222	183	268	470
Truckee	Boca	41	20	13	0	4	13

a - Average for years 1943 - 1949

TABLE 1. SUMMARY OF DATA

Summary of Data for the Year 1961							
Year	Month	Day	Time	Location	Observer	Remarks	Remarks
1961	Jan	1	10:00	Station A	John Doe	Clear	Good
1961	Jan	2	11:00	Station B	John Doe	Clear	Good
1961	Jan	3	12:00	Station C	John Doe	Clear	Good
1961	Jan	4	13:00	Station D	John Doe	Clear	Good
1961	Jan	5	14:00	Station E	John Doe	Clear	Good
1961	Jan	6	15:00	Station F	John Doe	Clear	Good
1961	Jan	7	16:00	Station G	John Doe	Clear	Good
1961	Jan	8	17:00	Station H	John Doe	Clear	Good
1961	Jan	9	18:00	Station I	John Doe	Clear	Good
1961	Jan	10	19:00	Station J	John Doe	Clear	Good
1961	Jan	11	20:00	Station K	John Doe	Clear	Good
1961	Jan	12	21:00	Station L	John Doe	Clear	Good
1961	Jan	13	22:00	Station M	John Doe	Clear	Good
1961	Jan	14	23:00	Station N	John Doe	Clear	Good
1961	Jan	15	24:00	Station O	John Doe	Clear	Good
1961	Jan	16	25:00	Station P	John Doe	Clear	Good
1961	Jan	17	26:00	Station Q	John Doe	Clear	Good
1961	Jan	18	27:00	Station R	John Doe	Clear	Good
1961	Jan	19	28:00	Station S	John Doe	Clear	Good
1961	Jan	20	29:00	Station T	John Doe	Clear	Good
1961	Jan	21	30:00	Station U	John Doe	Clear	Good
1961	Jan	22	31:00	Station V	John Doe	Clear	Good

Total = 1000

Average = 1000

NEVADA SNOW SURVEYS APRIL 1, 1951

LOCATION		SNOW COVER MEASUREMENTS						
		Water Content (inches)			Past Record		Av. Water Content (inches)	
		1951	1950	1949	Years of Record			
DRAINAGE BASIN and SNOW COURSE	Number	Sec. Twp. Rge. Elev.	Date of Survey	Snow Depth (inches)		Same Approx. Date	1950	1949
SNAKE RIVER								
Bear Creek	1	31 46N 58E 7800	4/1	64.6		22.8	23.1	24.4
Fox Creek	2	33 46N 58E 6800	3/29	19.5		7.9	10.3	13.9
76 Creek	4	6 44N 58E 7100	No Survey				16.8	No Survey
Gold Creek	5	31 45N 56E 6600	3/28	17.4		7.6	8.2	9.5
Big Bend	6	30 45N 56E 6700	3/28	34.0		12.5	12.7	15.2
OWYHEE RIVER								
Lower Buckskin	1	25 45N 39E 6700	4/1	29.3		10.8	10.1	14.2
Upper Buckskin	2	11 45N 39E 7200	4/1	23.7		8.8	8.8	9.1
Martin Creek	3	18 44N 40E 6700	4/1	16.3		6.0	8.7	8.6
Granite Peak	4	22 44N 39E 7800	3/31	35.3		11.0	11.9	8.9
Gold Creek	5	31 45N 56E 6600	3/28	17.4		7.6	8.2	9.5
Big Bend	6	30 45N 56E 6700	3/28	34.0		12.5	12.7	15.2
Fry Canyon	7	31 43N 54E 6700	3/29	24.5		10.2	8.8	15.0
Rodeo Flat	8	36 43N 53E 6800	3/29	20.8		9.2	8.4	16.2
Lower Jack Creek	9	18 42N 53E 6800	3/30	5.1		0.5	0	4.5
Upper Jack Creek	10	9 42N 53E 7250	3/30	40.0		10.4	10.2	14.3
Tremewan Ranch	11	9 39N 55E 5700	3/29	0		0	0	4.6
Taylor Ranch	12	35 39N 53E 6200	3/29	0		0	0	8.9

THE UNIVERSITY OF CHICAGO

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THE UNIVERSITY OF CHICAGO

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~~CONFIDENTIAL~~

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the 1990s, the number of people in the world who are under 15 years of age is expected to increase from 1.2 billion to 1.5 billion. The number of people aged 65 and over is expected to increase from 200 million to 400 million. The number of people aged 15 and over is expected to increase from 3.5 billion to 4.5 billion. The number of people aged 15 and over is expected to increase from 3.5 billion to 4.5 billion. The number of people aged 15 and over is expected to increase from 3.5 billion to 4.5 billion.

the 1990s, the number of people in the world who are undernourished has declined from 760 million to 600 million. The number of people who are malnourished has declined from 1.1 billion to 800 million. The number of people who are obese has increased from 100 million to 300 million. The number of people who are overweight has increased from 100 million to 300 million. The number of people who are obese and overweight has increased from 100 million to 300 million. The number of people who are obese and overweight has increased from 100 million to 300 million.

1911

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NEVADA SNOW SURVEYS APRIL 1, 1951

DRAINAGE BASIN and SNOW COURSE		LOCATION		Number	Sec.	Twp.	Rge.	Elev.	Date of Survey	Snow Depth (inches)	SNOW COVER MEASUREMENTS			
											Water Content (inches)		Past Record	
											1951	1950	1949	Years of Record (inches)
UPPER HUMBOLDT														
Bear Creek	1	31	46N	58E	7800	4/1	64.6	22.8	23.0	24.4	8	20.3		
Fox Creek	2	33	46N	58E	6800	3/29	19.5	7.9	11.0	13.9	14	8.6		
76 Creek	4	6	44N	58E	7100	No Survey			16.8	No Survey	4	10.0		
Gold Creek	5	31	45N	56E	6600	3/28	17.4	7.6	8.2	9.5	11	6.4		
Big Bend	6	30	45N	56E	6700	3/28	34.0	12.5	12.7	15.2	23	9.5		
Fry Canyon	7	31	43N	54E	6700	3/29	24.5	10.2	8.8	15.0	10	9.2		
Rodeo Flat	8	36	43N	53E	6800	3/29	20.8	9.2	8.4	16.2	10	9.9		
Lower Jack Creek	9	18	42N	53E	6800	3/30	5.1	0.5	0	4.5	16	4.1		
Upper Jack Creek	10	9	42N	53E	7250	3/30	40.0	10.4	10.2	14.3	10	10.6		
Tremewan Ranch	11	9	39N	55E	5700	3/29	0	0	0	4.6	9	0.6		
Taylor Canyon	12	35	39N	53E	6200	3/29	0	0	0	8.9	10	3.5		
Lower Trout Creek	13	28	37N	61E	6900	3/30	0	0	1.3	7.0	5	2.8		
Upper Trout Creek	14	4	36N	61E	8500	3/30	76.6	26.3	24.4	28.8	5	28.7		
Dorsey Basin	15	28	35N	60E	8100	3/30	41.9	13.9	11.3	18.4	9	15.8		
Ryan Ranch	16	1	34N	59E	5800	3/31	2.0	0.6	0	2.0	9	1.0		
Dry Creek	17	5	34N	60E	6500	3/31	4.5	1.3	0	8.0	9	3.9		
Lamoille #1	18	15	32N	58E	7100	3/29	7.0	2.8	12.7	12.4	19	10.1		
Lamoille #2	19	14	32N	58E	7300	3/29	10.9	5.2	13.6	13.0	22	10.6		
Lamoille #3	20	24	32N	58E	7700	3/29	30.8	12.6	19.0	18.2	16	13.8		
Lamoille #4	21	19	32N	59E	8000	3/29	49.8	19.8	23.3	24.0	10	20.0		
Lamoille #5	22	31	32N	59E	8700	3/30	73.7	34.4	37.6	29.4	13	27.9		
Green Mountain	23	23	29N	57E	8000	4/5	30.8	13.8	15.4	No Survey	8	14.2		
Harrison Pass #1	24	9	28N	57E	6600	4/1	0	0	1.5	9.0	14	5.2		
Harrison Pass #2	25	16	28N	57E	7400	4/1	0	0	2.8	11.0	9	5.3		
Corral Canyon	26	27	28N	57E	8500	4/4	59.1	22.4	21.2	No Survey	8	19.8		

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1. The first part of the paper is devoted to a review of the literature on the subject of the structure of the nucleus. It is found that the majority of the experiments have been carried out with the use of the alpha particle as a probe. The results of these experiments have been interpreted in terms of the liquid drop model of the nucleus. It is pointed out that this model is based on the assumption that the nucleus is a homogeneous system of protons and neutrons. This assumption is not valid for nuclei with a large number of protons and neutrons. The results of the experiments are therefore not valid for these nuclei. The second part of the paper is devoted to a discussion of the results of the experiments carried out with the use of the alpha particle as a probe. It is found that the results of these experiments are in good agreement with the results of the experiments carried out with the use of the alpha particle as a probe. The third part of the paper is devoted to a discussion of the results of the experiments carried out with the use of the alpha particle as a probe. It is found that the results of these experiments are in good agreement with the results of the experiments carried out with the use of the alpha particle as a probe. The fourth part of the paper is devoted to a discussion of the results of the experiments carried out with the use of the alpha particle as a probe. It is found that the results of these experiments are in good agreement with the results of the experiments carried out with the use of the alpha particle as a probe. The fifth part of the paper is devoted to a discussion of the results of the experiments carried out with the use of the alpha particle as a probe. It is found that the results of these experiments are in good agreement with the results of the experiments carried out with the use of the alpha particle as a probe. The sixth part of the paper is devoted to a discussion of the results of the experiments carried out with the use of the alpha particle as a probe. It is found that the results of these experiments are in good agreement with the results of the experiments carried out with the use of the alpha particle as a probe. The seventh part of the paper is devoted to a discussion of the results of the experiments carried out with the use of the alpha particle as a probe. It is found that the results of these experiments are in good agreement with the results of the experiments carried out with the use of the alpha particle as a probe. The eighth part of the paper is devoted to a discussion of the results of the experiments carried out with the use of the alpha particle as a probe. It is found that the results of these experiments are in good agreement with the results of the experiments carried out with the use of the alpha particle as a probe. The ninth part of the paper is devoted to a discussion of the results of the experiments carried out with the use of the alpha particle as a probe. It is found that the results of these experiments are in good agreement with the results of the experiments carried out with the use of the alpha particle as a probe. The tenth part of the paper is devoted to a discussion of the results of the experiments carried out with the use of the alpha particle as a probe. It is found that the results of these experiments are in good agreement with the results of the experiments carried out with the use of the alpha particle as a probe.

NEVADA SNOW SURVEYS APRIL 1, 1951

LOCATION		SNOW COVER MEASUREMENTS									
		WATER CONTENT (INCHES)				PAST RECORD					
		Number	Sec. Twp. Rge. Elev.	Date of Survey	Snow Depth (inches)	1951	1950	1949	Years of Record	Av. Water Content (inches)	
DRAINAGE BASIN and SNOW COURSE											
LOWER HUMBOLDT											
Lower Buckskin	1	25	45N 39E	6700	4/1	29.3	10.8	10.1	14.2	10	8.5
Upper Buckskin	2	11	45N 39E	7200	4/1	23.7	8.8	8.8	9.1	15	10.8
Martin Creek	3	18	44N 40E	6700	4/1	16.3	6.0	8.7	8.6	10	8.4
Granite Peak	4	22	44N 39E	7800	3/31	35.3	11.0	11.9	8.9	11	11.5
Lamance Creek	5	13	42N 38E	6000	3/31	19.8	8.2	9.9	11.9	6	7.6
Midas	6	18	39N 46E	7200	3/31	0	0	0	8.0	10	2.4
Big Creek Camp Ground	7	10	17N 43E	6600	4/2	0	0	0	5.4	9	2.2
Big Creek Mine	8	23	17N 43E	7600	4/2	5.0	3.0	0	9.5	9	4.1
Upper Big Creek	9	26	17N 43E	8000	4/2	11.0	6.4	4.1	10.3	9	9.1
Lower Corral	10	12	11N 40E	7500	3/31	0	0	0	2.5	9	1.9
Upper Corral	11	20	11N 41E	8500	3/31	0	0	0	7.9	9	5.6
EASTERN NEVADA											
Cave Creek	1	25	27N 57E	7500	3/29	22.3	9.5	19.8	24.2	10	14.4
Hager Canyon	2	34	27N 57E	8000	3/29	40.7	17.7	24.0	25.7	10	20.0
Murray Summit	3	25	16N 62E	7250	4/2	0	0	0	5.8	13	3.1
Baker #1	4	29	13N 69E	7950	4/2	0	0	0	11.6	9	6.0
Baker #2	5	30	13N 69E	8950	4/2	35.6	10.5	13.9	20.0	9	18.1
Baker #3	6	25	13N 68E	9250	4/2	38.1	11.9	14.3	20.5	9	19.3
Berry Creek	7	26	17N 65E	9100 -	4/2	36.6 -	12.2	16.7	18.9	3	16.6
Bird Creek	8	34	19N 65E	7500	4/2	0	0	0	7.3	3	4.7
Robinson Summit	9	34	18N 61E	7600	4/2	0	0	0	New Course	1	0
Kimberly	10	18	16N 62E	7600	4/2	0	0	0	"	1	0

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NEVADA SNOW SURVEYS APRIL 1, 1951

LOCATION				SNOW COVER MEASUREMENTS					
	Number	Sec.	Twp. Rge. Elev.	Date of Survey	Snow Depth (inches)	Water Content (inches)			Past Record
						1951	1950	1949	
DRAINAGE BASIN and SNOW COURSE							Same Approx.	Years of Record	Av. Water Content (inches)
LOWER COLORADO									
Rainbow Canyon	1	31	19S 57E 7800	3/28	5.8	1.1	9.4	10	12.8
Kyle Canyon	2	26	19S 56E 8200	3/28	1.9	0.5	5.1	9	11.1
Lee Canyon #1	3	10	19S 56E 8300	3/28	2.2	0.5	3.9	10	10.3
Lee Canyon #2	4	9	19S 56E 9000	3/29	7.3	1.8	4.7	9	12.0
Rainbow Canyon #2	5	6	20S 57E 8100	3/28	9.8	2.4	13.5	4	15.3
Mathew Canyon	8	11	5S 70E 6000	3/31	0	0	0	2	0.5
Pine Canyon	9	11	6S 69E 6200	3/31	0	0	0	2	1.2
CENTRAL GREAT BASIN									
Clark Canyon	1	8	19S 56E 9000	3/29	6.2	1.5	3.9	6	9.6
Trough Springs	2	23	18S 55E 8500	3/30	2.7	0.5	0.9	5	6.2
McAfee Forks (Cal.)	3	1	4S 34E 7500	3/31	0	0	0	3	1.9
NORTHERN GREAT BASIN									
Bald Mountain	1	17	45N 21E 6720	3/30	3.0	1.3	2.3	11	2.9
Disaster Peak	2	8	47N 34E 6500	4/1	27.4	10.9	7.2	2	10.8

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NEVADA SNOW SURVEYS APRIL 1, 1951

DRAINAGE BASIN and SNOW COURSE		LOCATION		SNOW COVER MEASUREMENTS										
				Water Content (inches)			Past Record							
				1951	1950	1949	Years of Record	Av. Water Content (inches)						
		Number	Sec.	Twp.	Rge.	Elev.	Date of Survey	Snow Depth (inches)	Same Approx.	Date	1949	Years of Record	Av. Water Content (inches)	
TAHOE														
Lake Lucille (Cal.)	1	28	12N	17E	8400	4/1	139.6	60.5	74.6	57.9	37	56.7		
Rubicon #1 (Cal.)	2	6	13N	17E	8100	4/1	128.6	46.7	59.7	45.2	35	45.8		
Hagans Meadow (Cal.)	3	36	12N	18E	8000	3/30	14.7	6.5	27.6	22.4	33	17.0		
Freel Bench (Cal.)	4	36	12N	18E	7300	3/30	13.2	2.0	16.3	16.2	21	10.5		
Ward Creek (Cal.)	5	21	15N	16E	7000	3/31	69.9	31.2	31.2	48.2	38	44.8		
Upper Truckee (Cal.)	7	21	12N	18E	6400	3/31	Trace	0.9	13.0	13.7	21	7.1		
Tahoe City (Cal.)	8	6	15N	17E	6250	3/30			13.7	22.5	40	13.2		
Rubicon #2 (Cal.)	9	6	13N	17E	7500	4/1	40.7	16.0	38.8	30.8	32	29.0		
Rubicon #3 (Cal.)	10	32	14N	17E	6700	4/1	27.0	7.7	No Survey	25.5	10	20.6		
Richardsons #2 (Cal.)	11	6	12N	18E	6500	3/31	21.0	9.7	25.8	22.8	7	16.3		
Echo Summit (Cal.)	12	6	11N	18E	7500	4/2	62.1	26.8	46.7	37.2	11	39.1		
Marlette Lake	13	13	15N	18E	8000	4/1	27.9	11.0	26.9	19.0	34	23.1		
Daggetts Pass	14	19	13N	19E	7350	4/2	9.1	4.2	16.6	16.2	35	13.7		
Glenbrook #2	15	13	14N	18E	6900	4/2	15.9	7.0	16.7	14.2	9	14.5		
Mt. Rose	16	7	17N	19E	9000	4/2	79.8	33.6	35.3	27.9	41	31.2		
TRUCKEE														
Independence Lake (Cal.)	2	9	18N	15E	8450	4/1	88.7	37.2	46.3	36.6	14	41.1		
Webber Peak (Cal.)	3	30	19N	14E	8000	3/28	75.3	29.6	42.4	43.0	29	40.3		
Donner Summit (Cal.)	4	25	17N	14E	6900	3/26	57.2	26.4	48.2	42.0	40	39.2		
Ward Creek (Cal.)	5	21	15N	16E	7000	3/31	69.9	31.2	56.1	48.2	38	44.8		
Webber Lake (Cal.)	6	20	19N	14E	7000	3/28	56.0	22.2	38.4	35.0	26	29.7		

NEVADA SNOW SURVEYS APRIL 1, 1951

LOCATION		SNOW COVER MEASUREMENTS								
DRAINAGE BASIN and SNOW COURSE	Number	Sec. Twp. Rge. Elev.	Date of Survey	Snow Depth (inches)	Water Content(inches)			Past Record Years of Record	Av. Water Content (inches)	
					1951	1950	1949			
TRUCKEE (Con't.)										
Sage Hen Creek (Cal.)	7.	7 18N 16E 6500	4/2	19.5	7.4	22.8	20.6	14	18.2	
Tahoe City (Cal.)	8	6 15N 17E 6250	3/30	2.0	0.9	13.7	22.5	40	13.2	
Truckee #2 (Cal.)	9	22 17N 16E 6400	4/1	11.6	4.4	18.6	18.9	21	14.7	
Independence Creek (Cal.)	10	14 19N 15E 6300	3/31	9.3	3.4	16.8	15.6	14	13.2	
Boca #2 (Cal.)	11	28 18N 17E 5900	3/31	0	0	5.4	No Survey	16	5.0	
Furnace Flat (Cal.)	12	10 17N 13E 6600	3/28	69.7	31.1	53.8	48.5	32	44.1	
Fordyce Lake (Cal.)	13	34 18N 13E 6500	3/27	59.3	26.5	49.9	49.6	33	38.2	
Soda Springs (Cal.)	14	23 17N 14E 6750	3/26	50.4	23.9	46.5	36.3	22	35.0	
Independence Camp (Cal.)	15	34 19N 15E 7000	3/31	36.2	15.2	29.6	25.0	10	21.9	
Mt. Rose	16	7 17N 19E 9000	4/2	79.8	33.6	35.3	27.9	41	31.2	
Truckee Ranger Sta.(Cal.)	17	10 17N 16E 6000	3/31	3.6	1.1	14.8	16.2	6	10.1	
Donner Lake (Cal.)	18	14 17N 15E 5950	3/31	29.0	13.4	25.7	30.0	7	21.4	
Big Meadows	19	15 18N 18E 8800	4/3	35.9	15.8	24.2	18.7	28	23.1	
Little Valley	20	17 16N 19E 6300	3/31	5.4	2.1	8.1	16.7	9	9.1	
CARSON										
Carson Pass (Cal.)	1	22 10N 18E 8600	3/30	51.2	20.9	44.3	35.4	21	37.0	
Poison Flat (Cal.)	2	25 8N 21E 7900	3/28	8.9	4.9	21.4	20.9	9	15.3	
Blue Lakes (Cal.)	3	30 9N 19E 8000	3/27	58.0	22.1	42.5	36.3	32	35.5	
Clear Creek	4	16 14N 19E 7300	3/31	13.3	4.4	16.4	16.4	2	16.4	

NEVADA SNOW SURVEYS APRIL 1, 1951

DRAINAGE BASIN and SNOW COURSE		LOCATION		SNOW COVER MEASUREMENTS						
				Water Content (inches)			Past Record			
				1951	1950	1949	Years of Record	Av. Water Content (inches)		
		Number	Sec. Twp. Rge. Elev.	Date of Survey	Snow Depth (inches)					
WALKER										
Center Mountain (Cal.)	1	4	3N 23E 9400	3/26	85.8	36.1	38.9	39.9	28	34.7
Sonora Pass (Cal.)	2	1	5N 21E 8800	3/26	31.3	12.6	25.2	27.0	19	24.4
Buckeye Forks (Cal.)	3	20	4N 23E 8500	3/31	26.3	9.4	21.9	22.7	20	19.7
Virginia Lakes (Cal.)	4	5	2N 25E 9500	3/28	26.1	10.6	16.4	18.5	4	15.3
Willow Flat (Cal.)	5	21	5N 23E 8250	3/27	0	0	9.5	12.2	17	10.9
Buckeye Roughs (Cal.)	6	15	4N 23E 7900	3/30	15.7	5.7	24.0	25.0	28	21.0
Leavitt Meadows (Cal.)	7	4	5N 22E 7200	3/26	0	0	5.0	11.9	21	7.8
Tioga Pass (Cal.)	8	30	1N 25E 9900	4/1	61.5	24.0	24.0	14.9	21	25.1

1900-1901

1901-1902

1902-1903

1903-1904

1904-1905

1905-1906

1906-1907

1907-1908

1908-1909

1909-1910

1910-1911

1911-1912

1912-1913

1913-1914

NEVADA COOPERATIVE SNOW SURVEYS
Agencies Cooperating in Collecting Data Contained in
this Bulletin.

FEDERAL

Soil Conservation Service
Forest Service
Geological Survey
Bureau of Reclamation
Fish and Wildlife Service

STATE

Nevada State Engineer
Nevada Agricultural Experiment Station
Colorado River Commission of Nevada
California Cooperative Snow Surveys
California Division of Water Resources
Oregon Cooperative Snow Surveys

MUNICIPAL

City of Ely, Nevada

PUBLIC AGENCIES

Truckee-Carson Irrigation District
Washoe County Water Conservation District
Walker River Irrigation District
Owyhee Irrigation District

PRIVATE UTILITIES

Sierra Pacific Power Company
Virginia City Water Company

PRIVATE ORGANIZATIONS

Amalgamated Sugar Company
Kennecott Copper Corp.
Union Pacific Railroad

THE STATE OF CALIFORNIA
COUNTY OF SAN FRANCISCO
I, the undersigned, a Notary Public in and for the State of California, do hereby certify that the foregoing is a true and correct copy of the original as the same appears in the records of the County of San Francisco.

WITNESSED my hand and the seal of my office this 1st day of January, 1901.

NOTARY PUBLIC

My commission expires on the 1st day of January, 1902.

STATE

NOTARY PUBLIC

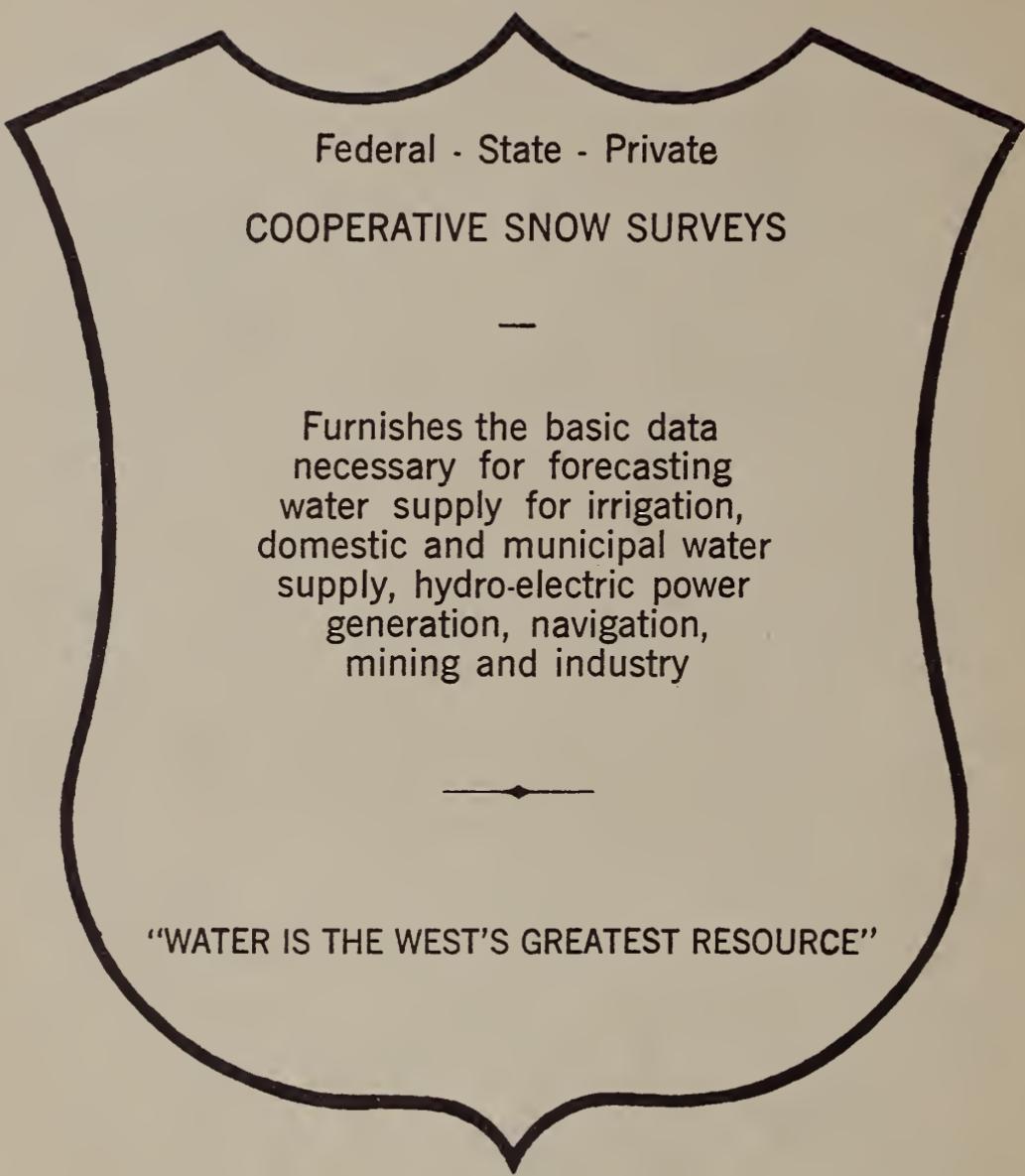
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Federal - State - Private
COOPERATIVE SNOW SURVEYS

Furnishes the basic data
necessary for forecasting
water supply for irrigation,
domestic and municipal water
supply, hydro-electric power
generation, navigation,
mining and industry

"WATER IS THE WEST'S GREATEST RESOURCE"